

REMARKS/ARGUMENTS**RECEIVED
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This is in response to the Office action of February 7, 2008.

Reconsideration is respectfully requested.

The present invention is directed towards a method of recovering metal from waste plating stream and utilizing that metal in the subsequent metal plating process. Typically, in a nickel plating operation, the waste plating streams have nickel ions in them. The present invention passes the waste metal plating stream through porous metallic cathodes and during the imposition of electric current, deposits the nickel ions onto the porous metallic cathodes. The nickel cathode with the nickel electrode deposit thereon is utilized as a source of nickel in a subsequent nickel electro-deposition process. In a preferred manner, ceramic diaphragms are utilized, as is pointed out in revised claim 12.

In the office action on page 2, a number of the claims are rejected as being anticipated by Kim, United States Patent 4, 445, 990. This rejection is respectfully traversed. While Kim is directed to removing heavy metal and other contaminants from wastewater from metal plating operations, the key aspects of the Kim patent is the utilization of a felt mass of conductive fibers. See column 3, lines 62 and following where the fibers may be made of a variety of carbonaceous materials. This is made clear in claim 1 where a cathode is described as a porous filter mass of conductive carbon fibers. The anode materials may be metallic, that is, of a nature to withstand strongly oxidizing conditions (column 4, lines 3 – 34). The patent does indicate at column 3, lines

5 - 7 that the reclaimed metal may be salvaged and returned to a plating bath. The difficulty however with the process of treating wastewater in the Kim patent is that the combination of felt materials that make up the cathode must be separated from the metal deposit. It is to be noted that none of the working examples of Kim teach the reutilization of the deposited metal in a subsequent metal plating process as an anode. This would be clear from reading example IV where the cathode, during the treatment of the waste water, is a stainless steel wool pad and copper was deposited on that cathode. Such a stainless steel wool cathode with a copper deposit on top could not possibly be used directly into a subsequent electro-deposition of copper. The separation of deposit from the cathode is required and would be difficult. Obviously, the steel wool would not be used as an anode material in an electro-deposition of copper. This is one of the distinct reasons applicants have specified the pure metallic cathodes in the specification on pages 7-8.

Applicant has better described the invention by revising the claims, consistent with the above understanding. For support, see paragraphs 6 and 20 as well as 23, the beginning portion thereof. Ceramic diaphragms are described in paragraph number 18.

The examiner has also rejected claims 5 - 7 and 11 under 35 USC 103(a) as unpatentable over Kim and further in view of United States patent 4, 834, 850. This rejection is respectfully traversed. The key features of applicants' invention are described above. The utilization of the deposited material, such as nickel is not described in the '850 patent. Further, the '850 patent is concerned with obtaining precious metals such as

gold and silver. Such technique is not disclosed the cited '990 patent. The '990 patent utilizes polymeric foam (column 5, line 46-47) as the main backbone of the cathode, albeit coated with nickel. Therefore, it is respectfully submitted that the references are not properly combinable. And even if they were combined, the claimed invention would not be taught or suggested.

In view of the above comments, it would appear that the application is conditioned for allowance and a notification of allowance is respectfully requested. Should the examiner have any questions with respect to the application and /or of this amendment, he may contact the undersigned by calling collect.

It is not believed that any new fees are necessitated by the entry of this amendment. However in the event that any new fees or charges are required, authorization is hereby given to charge such fees to applicant's Deposit Account No 50-3865.

Respectfully submitted,

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